

**Title II Project Application**  
**Medford District Resource Advisory Committee**

**Amount Requested : \$156,475**

- 1. Project Number** (Assigned by federal unit): 117-412
- 2. Project Name:** Thompson Creek Culvert Replacement
- 3. County:** Josephine
- 4. Project Sponsor:** Stephanie Messerle - GRPA BLM
- 5. Date:** April 14, 2003
- 6. Sponsors Phone # :** 618-2476
- 7. Sponsor's E-mail:** Stephanie\_Messerle@or.blm.gov
- 8. Project Location** (attach project area map)
  - a. 4<sup>th</sup> Field Watershed Name and HUC #(if known): Illinois HUC # 17100311
  - b. 5<sup>th</sup> Field Watershed Name and HUC #(if known): Deer Creek HUC # 1710031105
  - c. Legal Location:  
Township 38S Range 7w Section(s) 34
  - d. BLM District Medford
  - e. BLM Resource Area Grants Pass
  - f. National Forest \_\_\_\_\_
  - g. Forest Service District \_\_\_\_\_
  - h. State / Private / Other lands involved? Yes No

**9. Statement of Project Goals and Objectives:**

The goal of this project is to replace an existing corrugated metal pipe culvert on Thompson Creek with an open bottom arch. Thompson Creek, a tributary to Deer Creek Creek, is a perennial stream which supports coho, steelhead, and resident cutthroat trout. The existing culvert is a barrier to adult salmonids under some flows and an impediment to adult salmonids under other flows, as they migrate upstream. The culvert is an upstream barrier to juvenile fish. The culvert may be a complete barrier to coho adults. The Oregon Department of Fish and Wildlife have found coho in the pool below the culvert, but have not found coho upstream of the culvert. Coho and steelhead spawning and rearing habitat is present above the culvert for 0.25 mile. There is 0.7 mile of available cutthroat habitat upstream from the culvert.

Many culverts designed and installed in the past did not adequately consider fish migration and culverts were installed that impeded migration of salmonids. The objective of this culvert replacement is to provide year round fish passage to upstream habitat. Unimpaired fish passage is needed for salmonids to complete life history requirements. Spawning fish will have improved passage for habitat located above the culverts. Juvenile anadromous fish and resident salmonids will have unimpaired access to migrate up and downstream seeking cold water refuge during summer months. Deer Creek is listed on DEQ's 303(d) list as water quality limited based on high temperatures. In watersheds such as this, where summer stream temperatures are elevated above optimal levels for salmonids, it is especially important for juvenile salmonids to have unimpaired access to small tributaries which provide refuge from warm water in creek main stems. Salmonid production and survival should improve in this drainage with the replacement of this culvert.

Currently this culvert is undersized to accommodate the natural flows and bedload movement of the drainage. The culvert is 5.8 feet in diameter and 56 feet long. The current situation creates a hose effect, with high water velocity going through the culvert. This is evident by the large pool located at the outlet of the culvert. The Medford District Resource Management Plan (p. 87) directs upgrading existing road culverts which are determined to pose a substantial risk to riparian conditions to accommodate at least a 100-year flood and to provide and maintain fish passage at all road crossings of

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existing and potential fish-bearing streams (Standard and Guides, p. C-33, RF-6). The stream sediment regime and bedload carrying capacity is altered (from a natural, no road crossing situation) by the existing culvert. This is a result of slope and elevation of the culvert not matching natural stream grade as well as the size of the culvert being restrictive during high flows. During high peak flows stream excess flow is forced to find new routes eroding soils and, thus, picking up sediment. This sediment is an addition from that which would otherwise be in this system without the culvert. With an open bottom arch structure high stream flows, sediment regime, and bedload carrying capacity will be in a more stabilized condition. This is due to increased capacity of the culvert, the bottom of the culvert matching natural stream gradient, and there will be a more natural stream bed rather than a ribbed culvert surface.

**10. Project Description:** (Provide concise description of project and attach map.)

An undersized corrugated metal pipe, 5.8 feet in diameter, is currently in place. The proposed action is to replace the current culvert with an opened bottom arch structure to allow for adult and juvenile salmonid passage in all flows and for 100 year flood events. In stream work will be done between June 15 and September 15.

**11. Coordination of this project with other related project(s) on adjacent lands?**

Yes                      No                      If yes, then describe.

The Grants Pass Resource Area currently has funding to replace culverts in the Deer Creek Watershed. The Deer Creek Watershed is an important area for coho production, as it offers excellent spawning and rearing habitat. With the addition of another culvert replacement project, the habitat opened up for coho will greatly aid in the recovery of the species, as well as have benefits to other salmonids.

**12. How does proposed project meet purposes of the Legislation?** [Sec. 203(b)(1)]

Improves maintenance of existing infrastructure. [Sec. 2(b)]

Implements stewardship objectives that enhance forest ecosystems. [Sec. 2(b)]

Restores and improves land health. [Sec. 2(b)]

Restores water quality. [Sec. 2(b)]

**13. Project Type** (check one) [Sec. 203(b)(1)]

Road Maintenance [Sec. 2(b)(2)(A)]

Road Decommission/Obliteration [Sec. 2(b)(2)(A)]

Other Infrastructure Maintenance (specify): [Sec. 2(b)(2)(A)]

Soil Productivity Improvement [Sec. 2(b)(2)(B)]

Watershed Restoration & Mntc. [Sec. 2(b)(2)(D)]

**Fish Habitat Restoration** [Sec. 2(b)(2)(E)]

Reestablish Native Species [Sec. 2(b)(2)(G)]

Trail Maintenance [Sec. 2(b)(2)(A)]

Trail Obliteration [Sec. 2(b)(2)(A)]

Forest Health Improvement [Sec. 2(b)(2)(C)]

Wildlife Habitat Restoration [Sec. 2(b)(2)(E)]

Control of Noxious Weeds [Sec. 2(b)(2)(F)]

Other Project Type (specify) [Sec. 2(b)(2)]: \_\_\_\_\_

**14. Measure of Project Accomplishments/Expected Outcomes** [Sec. 203(b)(5)]

a. Total Acres: \_\_\_\_\_

b. Total Miles: providing 0.25 mile of accessible fish  
habitat for coho and

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- c. No. Structures: 1 d. Estimated People Reached (for environmental education projects): \_\_\_\_\_
- e. No. of Laborer Days: 96
- f. Other (specify): Program Element - JH
- 

**15. Duration of Project and Estimated Completion Date** [Sec. 203(b)(2)]: The design, NEPA work, permit acquisition, and contract preparation will be completed in FY04. The contract funds will be obligated in FY04, with the actual construction possibly occurring in FY04 or FY05. Fish passage effectiveness and channel condition will be monitored following construction.

**16. Target Species Benefitted:** (if applicable) coho, steelhead, and cutthroat trout

**17. How will cooperative relationships among people that use federal lands be improved?** [Sec. 2(b)(3)]

This project will replace an existing culvert which acts as a barrier to juvenile fish and an impediment to adult fish. At certain flows the culvert is a barrier to adult fish and may be a complete barrier to adult coho. The recovery of coho salmon as well as, summer steelhead and cutthroat trout will be enhanced by replacing the current culvert with a bottomless structure. An improved fishery will lead to an increase in recreation opportunities, such as fishing, on federal land for local residents and tourists.

**18. How is this project in the best public interest?** [Sec. 203(b)(7)] **Identify benefits to communities?**

By restoring fish access to upstream habitat, the public will enjoy the potential for a healthier population of salmonids. The improved viability of Thompson Creek and thus Deer Creek fisheries not only benefits the local community, who profit from living in a healthy, productive ecosystem, but also serves the needs of the greater community of regional residents who need productive fisheries to maintain their livelihoods. The fishing opportunities in the Illinois River would be improved for residents of the Illinois Valley as well as tourists seeking recreational fishing. The actual construction of the new structure will create jobs in the area as well.

**19. How does project benefit federal lands/resources?**

The replacement of the current culvert will allow anadromous and resident fish to reach spawning and rearing habitat that exist upstream on BLM land. With the impediment to upstream habitat eliminated, fish survival and productivity will increase. This project will also improve water quality and salmonid habitat by enhancing natural stream functions (ie: transport of spawning gravel and large woody debris from source areas to downstream depositional areas).

**20. Status of Project Planning**

- |                                                           |     |           |                       |
|-----------------------------------------------------------|-----|-----------|-----------------------|
| a. NEPA Complete:                                         | Yes | <u>No</u> | Not Applicable        |
| b. If No, give est. date of completion: <u>12-01-2003</u> |     |           |                       |
| c. NMFS Sec. 7 ESA Consultation Complete:                 | Yes | No        | <u>Not Applicable</u> |
| d. USFWS Sec. 7 ESA Consultation Complete:                | Yes | No        | <u>Not Applicable</u> |
| e. Survey & Manage Complete:                              | Yes | <u>No</u> | Not Applicable        |
| f. DSL/ODFW* Permits Obtained:                            | Yes | <u>No</u> | Not Applicable        |
| g. DLS/COE* 404 Fill/Removal Permit Obtained:             | Yes | <u>No</u> | Not Applicable        |
| h. SHPO* Concurrence Received:                            | Yes | No        | <u>Not Applicable</u> |

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i. Project Design(s) Completed: Yes No Not Applicable

\* DSL = Dept. of State Lands, ODFW = Oregon Dept. of Fish and Wildlife, COE = Army Corps of Engineers, SHPO = State Historic Preservation Officer

**21. Proposed Method(s) of Accomplishment**

Contract

Federal Workforce

County Workforce

Volunteers

Other (specify): \_\_\_\_\_

**22. Will the Project Generate Merchantable Materials?** (Sec. 204(e)(3))

Yes No

**23. Anticipated Project Costs** [Sec. 203(b)(3)]

a. Total County Title II Funds Requested: \$ 156,475

b. Is this a multi-year funding request? Yes No If yes, then display by fiscal year

c. FY02 Request: \$ NA

d. FY03 Request: \$ NA

e. FY04 Request: \$ 156,475

f. FY05 Request: \$ NA

g. FY06 Request: \$ NA

Item	Fed. Agency Appropriated Contribution [Sec. 203(b)(4)]	Requested County Title II Contribution [Sec. 203(b)(4)]	Other Contributions [Sec. 203(b)(4)]	Total Available Funds
24. Field Work & Site Surveys		\$2,000 (12 Federal Work Days)		\$2,000
25. NEPA & Sec.7 ESA Consultation		\$2,750 (1/2 Federal Work Month)		\$2,750
26. Permit Acquisition		\$500 (2.5 Federal Work Days)		\$500
27. Project Design & Engineering		\$2,750 (1/2 Federal Work Month)		\$2,750
28. Contract Preparation		\$1,375 (1/4 Federal Work Month)		\$1,375
29. Contract Administration		\$1,375 (1/4 Federal Work Month)		\$1,375
30. Contract Cost		\$131,000 (Contract Work)		\$131,000
31. Workforce Cost				
32. Materials & Supplies				

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<b>Item</b>	<b>Fed. Agency Appropriated Contribution [Sec. 203(b)(4)]</b>	<b>Requested County Title II Contribution [Sec. 203(b)(4)]</b>	<b>Other Contributions [Sec. 203(b)(4)]</b>	<b>Total Available Funds</b>
33. Monitoring		\$500 (2.5 Federal Work Days)		\$500
34. Other	\$2,750 (1/2 Federal work month for initial project planning)			\$2750
35. Project Subtotal		\$142,250		\$142,250
36. Indirect Costs (Overhead) (per year for multiple year projects)		\$14,225		\$14,225
37. Total Cost Estimate	\$2,750	<b>\$156,475</b>		<b>\$159,225</b>

**38. Identify Source(s) of Other Funding in Column C. Above** [Sec. 203(b)(4)]

**39. Monitoring Plan (Sec.203(b)(6))**

- a. What measures or evaluations will be made to determine how well the proposed project meets the desired ecological conditions?** [Sec. 203(b)(6)] **Who will be responsible for this monitoring item?**

BLM Grants Pass Resource Area Fish Biologists will conduct surveys following the culvert replacement to assess the effects on ecological conditions. Upstream habitat will be surveyed, to determine the presence of juvenile and adult salmonids.

- b. How will the project be evaluated to determine how well the proposed project contributes towards local employment and/or training opportunities, including summer youth jobs programs such as the Youth Conservation Corps?** [Sec. 203(b)(6)] **Who will be responsible for this monitoring item?**

This is not a youth employment opportunity. A contract will be written which is expected to be filled with local contractors, hiring local laborers, which will contribute employment opportunities to the local economy. A report will be filled with the Contracting Officer who tracks local employment.

- c. What methods and measures of evaluation will be established to determine how well the proposed project improves the use of, or added value to, any products removed from National Forest System lands consistent with the purposes of this Act?** [Sec. 203(b)(6) and Sec. 204(e)(3)] **Who will be responsible for this monitoring item?**

This project will not involve the removal of any products from federal lands. Roads are monitored by BLM's O&C permit system for hauling on BLM roads.

- d. Identify total funding needed to carry out specified monitoring tasks (Table 1, Item 33)**

Amount: \$500 for fish passage effectiveness and channel condition monitoring upon completion of construction.